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TYPHUS AND TYPHOID FEVERS.

To the Editor of the Boston Medical and Surgical Journal.

MY DEAR SIR,—Agreeably to your request I send a communication on fever, which was made to the Massachusetts Medical Society at its last annual meeting. In the August number of the *Dublin Quarterly Journal of Medical Science*, there is an article on fever by Dr. H. Kennedy, in which the writer maintains that the theory of one poison, the effects of which differ with circumstances, is most consistent with facts hitherto observed, and he gives a series of cases to establish the position that typhoid and typhus fevers are not distinct diseases. This conclusion cannot be accepted as by any means demonstrated. We may believe that there are several poisons producing fevers, that these poisons are often associated, that persons exposed to them variously have symptoms sometimes produced by one or more of these poisons. It seems to me also that we ought to pursue our researches in that direction. Dr. Kennedy does not accept the opinion, that emanations from sewers constitute the typhoid fever poison. They are not as yet proved to be so, but are they not justly suspected of having something to do with the production of the disease? Emanations from the living body are believed to constitute the typhus fever poison, and though this opinion may be said to be well supported by a large number of histories well taken and recorded, still all must admit that we need more information before we can say decidedly what the typhus fever poison is.

As your Journal has a wide circulation, the publication of the accompanying communication may elicit matter from some of your correspondents, valuable to help in answering some of these questions on the etiology and symptomatology of fevers here propounded.

Very truly yours, GEO. C. SHATTUCK.

MR. PRESIDENT, AND GENTLEMEN OF THE MASSACHUSETTS MEDICAL SOCIETY,—The interesting reminiscences of typhoid fever communicated last year by Dr. Perkins, have suggested a recital of three cases under observation during the last winter, in each of which there were certain peculiarities which will serve as matter for queries and remarks.

The first patient was a woman, 25 years of age, a native of Germany, well developed, but for two years an invalid, leucorrhœa being the symptom most prominent in her own mind, who took to her bed on the last Tuesday in October, having given up work on the previous Saturday; and on Monday, November 4th, she came from Providence to Boston by railroad, and entered the hospital the same day. Headache, pain in back and limbs, weakness, and, later, cough, were symptoms during the first few days. On Tuesday, November 5, the skin was hot and dry, the pulse 100, regular, small, quick and hard; respiration difficult, 40. Serum and yellow mucus streaked with blood were found in the spit-cup; cough moderately frequent. Pulmonary resonance and vesicular respiration were found over both upper chests, but there was flatness in front from fourth left rib downwards, with a friction sound on inspiration and expiration. The skin was of a dusky hue, the tongue coated—thirst, inappetence. Rose spots, no tenderness in iliac fossa, tympanitis, four loose dejections. No headache; mind clear, but easily tired; slept well in night.

There can hardly be a doubt in any mind, that this patient had typhoid fever. Headache, weakness, a hot skin and quick pulse, diarrhœa, tympanitis, rose spots, are all characteristic symptoms. But there was also pleurisy and congestion of the left lung. She remained in the hospital until the 24th of December, and then, after an illness of eight weeks, she had only so far recovered, that it was deemed prudent to yield to her earnest request to be allowed to go home. Weakness, emaciation, were still prominent symptoms, as they had been. The fever lasted a week, to return for a day or two at a time twice, and in connection with an aggravation of the thoracic symptoms. These were the most persistent of any. The diarrhœa, tympanitis and rose spots disappeared; there was gurgling in the iliac fossa on one day only, but no tenderness. The friction sounds of the left lower chest continued for a few days only, but diminished resonance, feeble respiration, mucous and occasionally bloody expectoration, cough, frequent and embarrassed respiration, were the prominent symptoms. November 22d, subcrepitant rale was noticed over lower left front and back, the skin was hot and dry, the pulse 128, the respiration 40. Delirium, stupor, sleeplessness, were never noticed. November 27th, the thirty-first day of her illness, she took solid food for the first time, having had broths, gruel, wine and whey, and whiskey punch previously, as she relished them. Cough, scanty mucous expectoration, diminished resonance and feeble respiration over the left lower thorax, with a blowing inspiration and a slight dulness under the left clavicle, were the physical signs when she went home. She had several boils during the last two weeks of her being in the hospital. The treatment consisted in gentle laxatives and diaphoretics, with nourishment and stimulus, as she was able to take them.

Now typhoid fever has been called a dothin-enteritis. Peyer's patches were probably affected in this case, but the disease by no means consisted in that affection. During several weeks there were neither abdominal nor cerebral symptoms. Are abdominal and cerebral symptoms and lesions essential to typhoid fever? Is it right to call it an enteric, an abdominal, a nervous or a brain fever? When we call it a zymotic disease, when we speak of it as the effect of a poison, do we not tell much more about the disease?

There were twelve cases of typhoid fever under treatment during the four months of November, December, January and February, four of them fatal, a larger proportion of deaths in fever cases than are found at the hospital during other years. The abdominal symptoms and lesions characteristic of typhoid fever were generally found, but I will relate briefly two other cases, neither of them fatal, to which the terms abdominal or enteric would hardly apply.

Mary McDougal, 33 years of age, well developed, having generally had good health, came into the hospital on the 23d of November, not having been quite well for a week or ten days, but having been confined to her bed only three days. She rode to the hospital, but walked up stairs, and seemed quite tired after the exertion. Headache, pain in back and limbs, and weakness, were the symptoms; but on the 24th, there was no pain in head, back or limbs; she had slept pretty well, her skin was warm, her pulse at 84, respiration 30, easy. The resonance of the chest was normal, except for increased dulness in the cardiac region, the respiratory murmur vesicular, free from rale. Expectoration sero-mucous, inconsiderable. Occasional cough. A systolic murmur following the first sound, loudest at the junction of the 3d left cartilage to the sternum, not heard over the carotids nor in the left vertebral groove, indistinct at apex. Both sounds of heart heard in right 3d intercostal space and over mid-sternum. Thirst, anorexia, tongue nearly clean, abdomen moderately full, no rose spots, no tenderness in iliac fossa, constipation. She kept her bed, being too weak to sit up, but had no pain. Cough and expectoration, and occasional sibilant rale over both backs. She began to sit up at the end of the fourth week of her illness, and was discharged well on the fifth day of January, after a residence of six weeks in the hospital. There were no delirium, stupor, subsultus tendinum, abdominal pain or tenderness, gurgling in iliac fossa, diarrhœa. Shall we call it a case of typhoid fever? The symptoms were from the thoracic organs, but the weakness so as to necessitate a recumbent posture in bed, thirst, loss of appetite, frequent in typhoid fever, are not recognized as accompanying such an inconsiderable disturbance of the circulation and respiration. The bellows systolic murmur was attributed to an obstructive disease of the valves of the pulmonary artery, and this was accompanied by an embarrassed circulation in the lungs, by exudation of mucous serum, and once or twice of the coloring matter of the blood in the bronchial tubes. The murmur had disappeared when she left the hospital, the cough had ceased, the respiration and circulation seemed normal. The thorax was examined carefully and frequently. The abnormal sound was loudest at the spot which is said to correspond with the locality of the valves of the pulmonary artery. It was not heard over the carotids nor in the vertebral groove, so that we cannot connect it with obstructive disease of the valves of the aorta. It was indistinct at the apex of the heart, where it should have been loud were it attributable to an insufficiency of the auriculo-ventricular valve. I do not regard this diagnosis as demonstrated, it is probable. The murmur was examined nearly every day during four weeks or more. The patient had had no dyspnœa nor palpitation before being taken sick; 8 or 10 years ago she had acute rheumatism, from which she had perfectly recovered. But was this a case of typhoid fever? There were no symptoms of dothin-enteritis. There could hardly have been any ulceration of Peyer's patches. This is not essential to typhoid fever, but how often does the poison producing that disease, spend itself on other parts and organs, and spare entirely the glandular system and mucous membrane of the bowels? This is the question which I would ask of the Society, and I would cite one more case which was under observation at the same time.

A well developed English woman, 21 years of age, took to her bed the 28th day of October; headache, pain in back and limbs: and, not getting any better, she came to the hospital on the fourth day of November. She was weak, dizzy; dulness of countenance, answering clearly and distinctly, but is soon tired; organs of sense not affected. Skin hot, pulse 92, thirst, anorexia, tongue coated; abdomen full, resonant, not tender on pressure, no eruption, constipation. No cough, nothing remarkable on exploration of chest. She relished and felt the better for dry toast and mutton broth. She took but little solid food, but drank freely of beef tea and chicken broth; and on the 12th November, the 16th day of her disease, when there was no fever, she said she was tired of spoon victuals, and was allowed to chew mutton chop and eat a potato, which sat well and were easily digested. She sat up a little while and walked a few steps on the following day. She gained slowly in strength, and walked out of doors on the 23d day of her illness. Emaciation was marked in her case. She remained in the hospital during a period of 8 weeks. She missed one catamenial period, and at the second, six weeks after she was taken sick, there was a profuse discharge, with exquisite abdominal pain and tenderness, the legs much flexed on the abdomen, the pulse 120 and small, nausea and vomiting. These symptoms continued during thirty-six hours, and disappeared. Now can we say that this is not a case of typhoid fever? We have none of the peculiar abdominal symptoms of the disease. There were no thoracic symptoms in this case, and headache was the only cerebral symptom. The nutrition was much affected, the emaciation and the fever quite marked. We cannot say, to be sure, that there was no disease of Peyer's patches, but we have no evidence of their being affected. Though typhoid fever has been so carefully studied, though we have so many valuable treatises and monograms devoted to it, there is much to be learned about it, and much can be done to disseminate and establish correct views in regard to it. Of its etiology we have learned a good deal. Recent researches point to the secretion of the bowels, to sewage, as causes of the disease, and to drains and cesspools as their seats. From hospital practice we cannot get the material for coming to definite conclusions on these points. All medical men should inquire closely in their private practice for evidence of the way the disease was contracted in every case, and we now seem to be put on the track of getting information, so much wanted on the source and nature of the poison which produces the fever. That the poison gets into the blood through the pulmonary and gastro-intestinal mucous membranes, that it acts upon that fluid, and upon the nervous system of organic as well as of animal life, we may regard as well settled. That it is more frequently determined to the glandular system of the intestines than to any other excretory organ, we may admit. The name broncho-typhus shows that we believe typhus poison to be determined to the lungs more decidedly and more frequently; though generally in typhoid fever, cough, expectoration, sibilant and sonorous rales, indicate that the bronchial mucous membrane has been affected by that poison. Information is wanted of the frequency with which this membrane is affected in different epidemics. Dr. La Roche has devoted a volume to the study of lung affections in malarious fevers. Are we right in inferring that pneumonia is more frequent as an epidemic peculiarity in periodical than continued fever?

This knowledge of local affections in fevers is necessary to perfect our classification. One difficulty here has been in names and distinctive marks being taken too much from symptoms or lesions. If we could get hold of the poison producing typhoid, of that producing typhus, of that producing relapsing fever, if we could study these, we should have a real basis for classification. And besides poisons of animal, vegetable, telluric and atmospheric origin, we have fever the effect of fatigue, of nervous exhaustion, of poisons generated in the economy. Now, carefully observed cases of continued fever, such as occur in private practice, are still wanted, as well as histories of epidemics. And these latter, prevailing in country towns or villages, if we could have detailed and accurate histories of them as occurring throughout New England for a succession of years, how much should we gain towards a satisfactory solution of the question, how many forms of continued fever there are, how they are related to each other, and how different poisons may be acting in one patient. Let us hope that this Society is doing its part towards getting the material for a medical history of our land, by encouraging its members in telling something of what they have seen or heard during the year at these their annual gatherings.

ON CATARACT.—No. IV.

[Concluded from page 157.]

As to the size, form and direction of the corneal section, and in general as to the whole process during and after the operation, there is little new to be said. Prof. Arlt has, in the main, retained the views expressed in his book published in 1853, Vol. II., pp. 293—326. The following, however, may be deserving of remark. At present he lets nearly all the patients lie in bed during the operation. They are thus more quiet, and do not keep the muscles (of the eye) in excessive tension. Probably it is in part owing to this circumstance that loss of the vitreous seldom occurs with us, and for the most part only in cases in which it had been expected beforehand (on account of capsular cataract or fluidity of the vitreous).

He himself does not hold the under lid, but the upper, by reaching down from the forehead with his thumb, and lets the assistant merely draw the under lid somewhat downwards. He no longer considers it necessary to finish the section in one movement (by merely pushing the knife forwards), but generally divides the last portion while drawing the knife backwards. He prefers knives after Beer's pattern, in which the base is to the length as two to seven, as these cut easier than knives that rise more rapidly from the point to the base. He avoids making the section near the sclerotic, not merely on account of the peeling off of the conjunctiva, but from having found that in such cases the periphery of the iris easily falls into the wound.

To open the capsule he generally makes use of the slightly curved, sickle-shaped needle of Rosas; in cases of anterior capsular cataract, an iris-hook and slender forceps (like the one for iridectomy) are kept ready at hand for extraction of the capsule. These instruments serve also to draw forward the pupillary edge of the iris when it appears necessary or advisable to remove a small part of it with the scissors.

In the third step of the operation he holds and directs the lids himself, pressing and stroking a little, now through the one, now through the other, as the momentary position and the delivery of the lens require. Larger remnants of the lens are brought out in the same manner, smaller ones with the curette.

For closing the eyes, strips of court-plaster are no longer used. They fret the skin, especially when the edges roll back, and occasion, in sensitive persons, winking, and even spasmodic closing of the lids, and the imprudent are likely in such cases even to lift their hands and take hold of the lids. The fossa between the bridge of the nose and the edge of the orbit is filled with a mass of loose lint, that of the other eye being filled before the operation. The lint is kept on by three strips of linen, each about an inch wide and from five to six inches long, and spread at each end with some diachylon plaster. One strip passes from the left frontal eminence obliquely down and outwards over the right cheek towards the parotid gland, the second likewise obliquely from the right frontal eminence to the left cheek, the third from one temple to the other over the eyes and nose. This bandage makes it easy for the patient to keep the eyes quietly closed without winking much, and protects them from dust, light, and changes of temperature. Under the bandage the secretion of the conjunctiva and meibomian glands does not dry up to hard crusts, and it is not necessary to wash the eyes for a long time before being able to examine them. If the lint is renewed every twelve or twenty-four hours, it does not adhere to the eyelashes, or at least can be easily loosened by dropping on a little tepid water. In this way one can very easily, and without danger, get a view of the eye, if desirable or necessary, and satisfy himself, when the patient complains of discomfort, whether there is anything going on wrong in the eye to cause it. The bandage is not left off till the sixth day, and cold dressings are substituted only when required by inflammatory attacks.

Uninterrupted rest in one position is less insisted on than formerly. Always on the second day towards evening, and often the first day, we let the patients sit up in bed for from ten to twenty minutes to rest themselves and so to lie more quietly afterwards. Only those movements are interdicted in which holding of the breath and venous congestion usually take place, since with these we have also to fear congestion of blood in the eye and increase of intraocular pressure. Included with the above, are violent coughing and laughing. With respect to keeping the patient in the supine position, we bear in mind the proverb, "*Allzuscharf macht schartig.*"

ON ARTERIAL MURMURS IN INCIPIENT PHTHISIS.

By W. S. Kirkes, M.D.,

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In the first of a series of Clinical Essays lately published, Dr. B. W. Richardson alludes to a former paper of mine on the subject of "Subclavian Murmur." This paper was read before a private Society for the Study of Chest Diseases, in April, 1858. Its publication was delayed in order to afford time for further observations, so that a more complete account of the subject might be given. Other occupations, however, having interfered with this intention, and Dr. Richardson's investigations having so successfully supplied much that was wanted in the clinical history of this peculiar physical sign, I am induced now simply to print the paper exactly as it was originally read, making only one additional remark; namely, that repeated subsequent observations have convinced me more and more of the value of this sign in many doubtful cases of incipient tubercular disease of the lungs.

The fact that a murmur, or *bruit*, coincident with the heart's systole, but independent of any cardiac disease, may, in many cases of incipient phthisis, be heard in one or other subclavian region, has long been known. Dr. Ogier Ward, I believe, was the first publicly to direct attention to this fact; at least, I have not met with any earlier allusion to it than that in a paper communicated by Dr. Ward to the *Medical Gazette* about twenty years ago. Therein he speaks of "a peculiar murmur heard in certain parts of the chest of persons presenting symptoms of phthisis," and he says "it occurs in such parts of the chest as percussion or auscultation would indicate as the seat of crude tubercles." Dr. Latham, however, was probably then, if not long before, familiar with the murmur in question, for in his Clinical Lectures on Diseases of the Heart, delivered many years ago at St. Bartholomew's Hospital, he speaks very strongly about it, though at the same time it must be observed that his remarks only apply to a murmur heard in the situation of the pulmonary artery, and not high up in the subclavian region. He says, "Fancy a line drawn from the left side of the sternum along the upper edge of the second costal cartilage, and continued an inch along the second rib; and another line drawn from the sternum along the lower edge of the third costal cartilage, and continued an inch along the third rib. Between these two lines a space is included, in the whole or in part of which a murmur is often audible coincident with the systole of the heart, when no such murmur can be perceived either in the præcordial region, or in the course of the aorta, or in the carotids, or in any part of the arterial system, but here, and here only. It is a gentle bellows-murmur, quite obvious to the ear, and unmistakeable in its character. Of such a murmur, often audible in this situation exclusively, I am certain as a matter of fact, and certain, too, of its very remarkable accompaniments. I have witnessed it in those who were undeniably consumptive, or in those who were too justly suspected of being so. I cannot say in what proportion of the phthisical it occurs; but I am continually meeting with it." It is clear, then, that Dr. Latham was quite familiar with these arterial murmurs, and that he attached some value to them as a diagnostic sign of phthisis. Since this account was published, however, very little has been written on the subject, casual allusion to it in various works on diseases of the chest being nearly all I have met with. I think, however, that the subject deserves further examination, especially since the murmur in question is frequently attendant upon incipient phthisis, and also since there is often so much obscurity in the other physical signs of early tubercular deposit in the lungs—a little feebleness or coarseness of the vesicular murmur, slightly prolonged expiration, and a somewhat diminished resonance on percussion being nearly the only manifestations of incipient phthisis; and even these are often of very doubtful nature, and rarely exist in a marked degree until a considerable amount of deposit has taken place. Any additional physical sign, therefore, by which the diagnosis of incipient phthisis may be facilitated, cannot fail to be of value, especially if it be one easy of detection, such as a well-marked arterial *bruit*.

It may be as well to mention some of the more striking peculiarities by which the murmur in question is distinguished from most other forms of murmur; several of these peculiarities are noted in the extract just given from Dr. Latham's work. Other additional points I have noticed myself.

1. First, it may be repeated that the murmur is independent of a murmur in the region of the heart; this is an important point, for if a cardiac murmur existed, its transmission might, of course, be supposed to explain the one heard in the subclavian region; but again and again I have found the heart's sounds quite healthy when the subclavian murmur was well marked. The conclusion arrived at, therefore, must be that the murmur has its origin at or about the part where it is heard, and not in the heart.

2. Next, as to the situation of the murmur. Dr. Latham speaks of it only as occurring in the neighborhood of the main trunk of the pulmonary artery, and therefore limited to the left side of the chest, and to that part of the left side where the pulmonary artery is situated, namely, the junction of the second and third costal cartilages and their intervening space to the sternum. But according to my own observation, it occurs, even more commonly, much higher than this situation, close under the clavicle, especially towards the humeral end of the bone; and, moreover, it occurs nearly, if not quite as frequently, on the right as on the left side of the chest; in fact, it occurs on that side and in that situation where we often have reason to suspect the existence of tubercular deposit.

3. Then there are certain peculiarities in the murmur itself. Its intensity varies greatly, ranging from the faintest whispering bellows-murmur to a loud harsh roaring sound. On one occasion, a man with symptoms of phthisis presented such a long and rasping murmur in one of the subclavian regions that I suspected he had an aneurism there; but on examining him again, a few days afterwards, the murmur had almost completely disappeared; and subsequent observation of the case proved that it was simply one of the class we are considering. This variableness in intensity of the murmur, even in the same patient, is another striking peculiarity which it often presents. Even while listening, a murmur which was harsh at first will often gradually become fainter, and may even completely disappear for a while. So fugacious, indeed, is the murmur sometimes, that I have frequently known it disappear and reappear seve-

ral times while a patient has been under examination. It may often be noticed, too, that the murmur is much influenced by the respiratory movements; its intensity being often greatest at the end of full inspiration, or just at the turn when expiration begins. Sometimes, indeed, the murmur is heard only at that time, disappearing completely during expiration, and only occurring again at the end of the next full inspiration. Its intensity is influenced, too, as is that of most other systolic murmurs, by the degree of vigor with which the heart is acting; being loudest when the heart is contracting vigorously, as when a patient first enters the room, or is somewhat excited, and becoming fainter as the temporary excitement subsides.

Such are some of the chief peculiarities of the murmur. Then comes the question, "To what cause is the murmur due?" This is the most important part of the inquiry: and I confess there is much difficulty about it; but the following remarks may probably help towards a satisfactory solution of the difficulty:—

1. Is the murmur simply anæmic? *i. e.*, brought about by an impoverished state of the blood, and a corresponding weak state of the vessels. I do not think it is; for if it were so it would most probably be heard at the base of the heart, and along the aorta, and in most of the main branches of the thoracic aorta; but, as observed, the subclavian murmur is usually independent of any cardiac or other murmur, and, moreover, it is commonly heard in one subclavian region and not in the other, a fact quite inconsistent with the supposition of an anæmic origin. Again, if it was purely anæmic it ought to be heard in all cases of anæmia; and it ought not to occur in cases which are not anæmic; but neither of these results is found to happen; for it is rare to meet with the murmur in anæmic cases independent of tubercular deposit, while it is frequently heard in suspected phthisical patients before any marked signs of anæmia are developed. Again, too, if it were anæmic it ought to be constant, or nearly so, like other arterial anæmic murmurs, whereas it is, as I have said, often most fugacious—fading, disappearing, and reappearing again and again even during the same examination.

2. This variableness in its intensity, and even in its existence, naturally suggests that the murmur is due to some cause which is not always in operation, but only exercises a temporary influence. Now, nothing is so likely to be of this nature as pressure; for we can readily understand that with the continual changes taking place in the respiratory and circulatory movements within the chest, arterial and other canals, with their contents, will be continually exposed to varying degrees of pressure. Some examination of this as the probable cause of the murmur is necessary.

It is, perhaps, scarcely requisite to call to mind that simple pressure on a given part of an artery is sufficient to cause a murmur, by accelerating the current at the part compressed, and thus increasing the force with which the particles of blood come into collision with those in the succeeding wide part of the canal. Dr. Lathan pointed out this fact very clearly, showing that in children with yielding thoracic parietes it is easy to produce a murmur in the pulmonary artery by exercising a little extra pressure with the stethoscope at or about the second left intercostal space near the sternum; and Dr. Jenner has since confirmed this observation by several additional examples. It being well determined, then, that artificial pressure on an artery, by narrowing its calibre at a given part, may give rise to a murmur, we can readily understand that a like result—namely, an arterial murmur—may ensue when a large arterial trunk is compressed by any solid material such as cancerous or tubercular matter deposited in parts contiguous to it. In order to the production of such a murmur, it is not perhaps enough that the parts surrounding the artery, say the tissue of the lung, should be simply consolidated, but probably they must be so affected as actually to press upon and narrow the artery at some point; as, for example, when a deposit ensues in such a situation as to project above the general level, and this in the immediate proximity of an arterial trunk.

That arterial murmurs in different parts of the thorax may thus be the result of pressure exercised by a terbercular lung, is demonstrated by an example mentioned in Dr. Hope's great work "On Diseases of the Heart." "I had a patient," Dr. Hope says, "in the St. Marylebone Infirmary, in whom I, as well as the Apothecary, Mr. Hutchinson, noticed a distinct murmur along the ascending aorta on some occasions, and not the slightest in others. I was much perplexed, and could not make up my mind as to the existence of valvular or aortic disease. The patient died of phthisis; and on post-mortem examination it was found that the anterior edge of the left lung, completely indurated by tubercular deposition, pressed so exactly on the ascending aorta as actually to have taken its mould, though without adhering. It was now recollected that the murmur had always been heard when she lay on her back or inclined to the right side, but not when inclined to the left; hence we ascribed it to pressure of the lung on the aorta when the position of the body caused it to gravitate towards the right side." (Third edition, p. 391.) There can be little doubt that Dr. Hope's interpretation was correct; and it clearly suggests to us that tubercular and such-like deposits in other parts may, when in close proximity to a larger artery, compress it and so give rise to a murmur.

I incline, then, to believe that in the majority of cases in which this subclavian murmur occurs in incipient phthisis, it is due to unwonted pressure exerted on some large arterial trunk, diminishing its calibre at the compressed part. The cause of pressure is, no doubt, the tubercular matter deposited in the pulmonary tissue. But then the inquiry occurs, What artery is compressed? This, no doubt, will vary according to the seat of the tubercular deposit. If it occurs below the apex of the lung or near the situation of the pulmonary artery, this vessel may be the one compressed and the one which gives rise to the murmur, as so often noticed by Dr. Latham.

The same artery, too, may be compressed and probably generate a murmur in cases where neighboring bronchial glands are enlarged and filled with tubercular matter. But when the deposit occurs, as it usually does, in or closely adjacent to the very apex of the lung, the arterial trunk most likely to be compressed is the subclavian. This artery lies upon, and actually indents the apex of the lung for a distance of an inch and a half or two inches on the left side, rather less on the right. Now, when the apex of the lung is consolidated by tubercular deposit, we can readily understand that it will tend to exercise a greater degree of pressure on the subjacent artery than would healthy vesicular structure, and would therefore be likely to diminish the calibre of the vessel at that part, and thus give origin to a murmur. This supposition is strongly confirmed by the fact that the murmur is usually loudest at the end of full inspiration; for it is intelligible that when the vesicular structure of the neighboring portion of lung is fully distended with air, the consolidated portion will exercise a greater amount of pressure on the adjacent parts than when the vesicular structure is comparatively empty. The subclavian artery, then, I would suggest, is probably the usual source of the murmur so frequently heard when there is reason to suspect terbercular deposit in or about the apex of the lung; and when heard it may generally be held to indicate that the tubercular deposit is exercising pressure on the vessel. But although the subclavian artery is probably the most common seat of the murmur, yet the aorta, the innominate, and the carotids, are all in immediate proximity to the portions of lung most usually the seat of tubercular deposit, and may therefore be compressed by it, and give rise to a murmur. There is, of course, another view which may be taken as to the cause of the murmur; viz., that it may be the result not of pressure on a main artery, but simply of impediment to the transit of blood through the consolidated pulmonary tissue, whereby the pulmonary artery and its main branches become obstructed. But I cannot clearly understand in what way such impediment can give rise to a murmur presenting the characters already mentioned, and I am therefore inclined to ascribe very little influence to this condition.

With regard to the diagnostic value of the murmur, I may add that although its existence may be regarded as a strong additional sign of terbercular deposit, yet its absence must by no means be held as negativing the existence of such disease, for it is quite intelligible that even a considerable amount of deposit may exist without being so situated as to exercise sufficient pressure on any large artery to produce a murmur. Then, again, I would repeat that, so far as I have been able to determine, the murmur is an attendant on the *earliest* stage of phthisis, that namely of tubercular deposition; and on this fact its chief diagnostic value depends, for in the stage of softening the physical signs of the disease are too obvious to need any additional confirmation. The presence of the murmur in the earliest stage, and its absence in the stage of softening, are quite intelligible on the view that pressure by a consolidated lung is the cause of the sound, for it is in the first stage *especially* that this condition is likely to exist, the lung in the later stages being more or less softened, broken down, and hollowed into vomicæ. Moreover, in the later stages the total amount of blood is diminished from deficient nutrition, and the muscular power of the heart is also lessened, so that the blood is propelled with less force.

There is just one other point which I may mention; care should be taken, when listening towards the humeral end of the clavicle, not to press too hard on the subclavian artery in its course outside the chest, for in some cases I believe I have by such pressure induced a murmur which did not previously exist; and this is a caution which should be especially observed in thin and anæmic subjects.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

AUG. 11th.—*Muscular Debility, cured by Mechanical Support and systematic Exercise.*—Dr. SHATTUCK reported the following case:—E. W., aged 16, was born in Hamburg, but came to this country when a child, and has not been exposed to hardships or privations. She had good health till the age of 13, when she gradually lost strength, her appetite diminished, the digestion became difficult, and the bowels at times constipated. Her catamenia appeared at the age of 11½, and were regular, with intervals of three weeks, except at one time, when they did not appear for six months. In October, 1860, she entered the Female Medical College Hospital, where she staid till the following June, mostly confined to her bed, with pain in the back, irregular, capricious appetite, constipation and more or less difficulty of digestion. She took various preparations of iron and bark, and received other treatment, but did not improve. She entered the Samaritan Hospital on the 10th of August, 1861. At that time she was mostly confined to the bed, could not hold herself up, and when she attempted to walk, was bent nearly double.

Dr. Buckminster Brown took the charge of her case in the month of October, and in the course of the next three months she had improved so much as to be able to walk about perfectly erect, and to do the work of the ward, sweeping, dusting and making beds. She took various preparations of bark and iron, and some laxative medicine. An iron support was worn a great part of the day, which was so adapted as to interfere but little with the motions of the chest and abdomen. Various gymnastic exercises were contrived, so as to exercise the muscles of the back. She persevered in the regular use of these, having a strong wish to get well. A liberal supply of pure air, of wholesome food at proper intervals, and bathing and friction of the skin, were also employed, and contributed to the favorable result. The support was worn for three months, and its use was given up gradually. She left the hospital in the month of June, and took a place as domestic in a family. She is now perfectly well, and stronger than the average of girls of her age ; her appearance is that of health and vigor, her spine having only the normal curves.

Mechanical supports and gymnastic exercises are often abused, and therefore are somewhat suspected, but we have here an instance where their skilful application has been the means of restoring a helpless and suffering invalid to health and usefulness. This is one of those cases where the personal qualities of the medical and other attendants, where mechanical ingenuity, kindness of nature, patience and perseverance, were most important elements of success. Cases like this are not unfrequent, of young women, bed-ridden and helpless, who can be restored to usefulness by proper treatment, which, however, is not easily applied, and where the trust and docility of the patient is as essential to success as the skill and perseverance of the physician.

SEPT. 8th.—*Empyema with very slight general Symptoms ; Thoracentesis.*—Dr. FIFIELD said he was applied to, a month ago, by a man who drove an express wagon, to be examined as to his soundness of health. The patient said that he had an attack of pleurisy in May, 1861, from which he did not recover till the following February. On examining his chest, Dr. F. found flatness of percussion-sound and absence of respiration throughout the whole of the left chest, and presuming that it was full of water or pus, advised puncture, which was refused. Three or four days ago the man came again, and Dr. F. found the heart displaced towards the right for a distance of seven inches. The pulse was 100, feeble and irregular. The patient was still pursuing his calling, but complained of shortness of breath. Yesterday, Dr. F. punctured the chest between the eighth and ninth ribs, and drew off sixty-six ounces of pus. Towards the close of the operation there was some cough, which ceased on removing the trocar. To-day, Dr. F. found, to his surprise, that the patient had mounted his wagon, and driven to town as usual.

Dr. Fifield used the syringe on this occasion. He thought it an awkward instrument, and doubted if it were really of much service. The want of a stop-cock to the canula is a great inconvenience, as air must enter to some extent without it, as actually occurred in the present case, after unscrewing the tube. The position of the patient is often uncomfortable when the syringe is used, whereas if a simple trocar and canula be employed the patient can lie down while the fluid is running out. He noticed that the "drainage tube," an elastic tube pierced with holes and passed through an upper and lower opening, was much used in England, but he had had no experience with it.—(Vide *Med. Chir. Trans.*, Vol. XLII. ; also *Lancet*, Vol. II., 1859, p. 11.)

Dr. WARREN said that he had for the most part used Guérin's syringe, which is provided with a stop-cock. The elastic tube is frequently troublesome, and collapses when the fluid is thick and the suction strong. It is then necessary to screw the syringe directly on to the canula. When the canula used is small, in order to make the connection between it and the elastic tube air-tight, a bit of bladder or intestine can be used. This is to be cut to the size of a dollar, the trocar thrust through its middle, and by wetting it, and drawing it back over the joint, no air can penetrate. Most cases of empyema, however, come at last to a fistulous opening, which ought always to be large. If small, the free exit of the pus is hindered, and inflammation of the sides of the abscess, and sometimes necrosis of the rib, are apt to follow, with hæmorrhage. In one of his cases, which happened ten years ago, the opening, made a year before, was fistulous and quite small. Profuse bleeding took place, and the patient nearly died. As the bleeding was usually very sudden and violent, as if from a large vessel, it was at first supposed that the intercostal artery had been eroded, especially as the rib was carious. An operation was done, the rib was exposed, and one or two inches removed, so that the finger could pass freely into the cavity of the chest. Several quarts of pus and blood were evacuated. The patient was a large man, with a very expansive chest. No artery was discovered, but the bleeding seemed to come from the irritated vessels in the neighborhood of the aperture. The patient recovered, and is now well.

Dr. **Minot** said that a patient upon whom he had performed this operation in the Hospital a year ago, bled to death twenty-six days afterwards. The bleeding apparently did not come from the puncture, as it was mostly internal. The discharge of pus had been quite free, and gave great relief to the patient. At the autopsy there was found caries of several of the ribs, but the source of the hæmorrhage could not be ascertained.

Dr. **Bethune** thought that the necrosis might possibly be the cause, and not the consequence of the empyema, in some cases.

Dr. **Jackson** remarked that he had never met with necrosis in these cases, and thought that, when it occurred, it must generally be secondary. As to the entrance of air into the chest, he thought its importance had been exaggerated. Its presence in the healthy chest seems to do little harm. In the operation of removing the breast, the pleura is now and then punctured; air enters, and the lung collapses, but the air is soon absorbed. When the pleura is inflamed, the effect might be more unfavorable. With regard to the operation, he thought that a free incision might sometimes be made in chronic cases, instead of a small puncture. In a case that he saw, of the late Dr. Fisher's, a spontaneous opening was anticipated by making a free incision; an enormous discharge of pus followed, and continued for some time, and the patient recovered perfectly.

Dr. **Warren** said he visited, with Dr. Bowditch, some years ago, a boy with empyema, in whom there were two or three fistulous openings which had formed spontaneously. The patient had symptoms resembling phthisis, and his condition was very unpromising. Dr. B. and himself agreed on a free incision, which was prevented from closing by means of a tent. The discharge became free, and the boy immediately improved, and recovered perfectly. In this case no disease of the rib was discovered.

Dr. J. P. **Reynolds** asked whether much treatment were really demanded in cases of simple pleurisy. He was not in the habit of treating the disease actively, and in the case of a delicate person who came under his care the result was very satisfactory.

Dr. **Fifield** remarked that immense quantities of fluid, in cases of recent effusion, were sometimes absorbed in an astonishing manner, an example of which he had reported to the Society a year ago.—(See this Journal, Vol. LXIII., p. 40.)

Dr. **Minot** thought that patients sometimes first apply for advice after the fluid is really absorbed; the false-membranes remaining may be sufficient to cause dulness on percussion and obscure respiratory murmur. In such cases we may fancy we cure our patients, when they were in reality already cured.

Dr. Reynolds said he alluded to cases in which there were unmistakable signs of effusion, such as a change in the locality of the physical signs corresponding to a change of posture of the patient.

Dr. Minot said he was surprised to find how few cases occurred in which this test of the presence of fluid in the chest could be made available; probably owing to the effusion being usually confined by adhesions.

Dr. Fifield had observed the same thing.

Dr. Jackson thought that the change in the situation of the physical signs produced by change in the patient's position is often very remarkable, and such a case is now under his care in the Hospital. While lying down, the percussion in this patient is resonant and the respiration natural over the right front; with perfect flatness and bronchial respiration when he is upright. In this case there is an entire absence of pain in the chest, but dyspnœa is an urgent symptom. In respect to treatment, Dr. J. observed that the external application of tincture of iodine was much used here, and in a recent Hospital case he thought that more improvement was obtained by this remedy than by any other, before the chest was punctured. He had heard it said, however, that Skoda, of Vienna, considered it of no use whatever; and that he will sometimes paint the chest over with the tincture to prove his point. Dr. J. remarked that the physical signs often remain, to some extent, long after the patient is well; and we may sometimes be deceived into keeping him under treatment too long.

Dr. Bowditch said he had used Dr. Wyman's instrument too often to give it up for slight reasons. If properly used it is impossible for air to enter the chest. The tube should not be unscrewed from the canula until the latter is removed from the chest. Nor had he ever had the tube collapse in the slightest degree. He was aware that the instrument was imperfect, for it could not pretend to cure every case, but it was exceedingly useful in many cases in which it was impossible or improper to use Trousseau's or Guérin's trocars, which were altogether too large, and in which the patient would die without an operation. The exploring trocar reaches many cases which other instruments are incapable of reaching. He was satisfied that strong suction was often beneficial by forcing the lung to expand. He always stopped when the patient experienced any painful or disagreeable sensation, except cough, which he thought was a good sign, indicating that the lung was expanding. When there was no cough, he thought the case unfavorable, as showing that the lung was bound down by strong adhesions and could not expand. As a rule he punctured an inch or two above the level of the lowest point at which the respiratory murmur could be heard on the sound side—generally between the 9th and 10th ribs, and in a line let fall from the angle of the scapula. In cases in which it is expedient to leave a canula in the chest, he had found that an elastic tube was far more comfortable to the patient than a silver one, which prevented him from lying except in certain positions.

With regard to the external application of iodine, Dr. Bowditch was satisfied that rapid absorption sometimes takes place under it, when it causes severe pain. It must not be employed in a namby-pamby manner, but must be used with effect. The ethereal tincture, of the strength of half a drachm to the ounce, was the best and most effectual preparation.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, OCTOBER 2, 1862.

Are Members of the Massachusetts Medical Society exempt from Draft?—We have received the following communications touching this most important question:—

"*Waltham, Sept.* 25, 1862.

"Mr. Editor,—It appears that members of the Massachusetts Medical Society are not exempt from draft. This is not as it should be. In times like these, when medical men are in great demand, both for service in the field and in Hospitals, they ought not to be liable to be drafted and placed in the ranks. Professors in Medical Colleges, and advanced Medical Students (as the latter have done, and are still doing valuable service for the wounded in this war), should be exempt from draft. Enough will always be ready to volunteer their services when required; and we are confident that they can render more valuable service as *healers* than *slayers*. Medical men are quite as useful as any other class of citizens, and if any are to be exempt, we think they should be; and we hope an effort will be made to have their claims recognized by both State and National Governments.

J. L. D."

"Mr. Editor,—It has been said, that members of the Massachusetts Medical Society are *not* by law exempted, as such, from enrolment and draft, and that members of the Massachusetts Homœopathic Medical Society *are* exempt from the same. As the question is one which, so far as the former are concerned, may be yet decided under a writ of *habeas corpus*, would it not be well for the Journal to publish the Charters of the two Societies, with the amendments and additions made to the Charter of the former, touching this point, as well as the general law under which Judge Russell has decided that the vested rights of the former have been taken away? * * *"

In reply to the request of the last of these communications we reprint the clause of the Charter of the Massachusetts Medical Society, exempting its Fellows from enrolment, which concisely says:—

"Section 7. *And be it further enacted,* That the fellows of the said corporation shall not be liable to be enrolled or mustered in the militia of this commonwealth."

The Militia Law of the Commonwealth, as printed in the General Statutes, reads as follows:—

"Section 1. Every able-bodied white male citizen, resident within this state, of the age of eighteen years, and under the age of forty-five years, excepting persons enlisted into volunteer companies, persons exempted by the following sections, idiots, lunatics, common drunkards, vagabonds, paupers, and persons convicted of any infamous crime, shall be enrolled in the militia."

Persons exempted from enrolment are specified as follows:—

"Sect. 9. In addition to the following persons absolutely exempted from enrolment in the militia by the laws of the United States, viz.:—

"The vice-president of the United States;

"The officers, judicial and executive, of the government of the United States;

"The members of both houses of congress and their respective officers; custom house officers and their clerks; inspectors of exports; pilots, and mariners employed in the sea-service of a citizen or merchant within the United States;

"Postmasters, assistant-postmasters, and their clerks, post officers, post riders, and stage drivers, in the care and conveyance of the mail of the United States; ferrymen employed at any ferry on the post road; the artificers and workmen in the United States armory at Springfield and the arsenal at Watertown;

"The persons hereinafter mentioned, shall also be absolutely exempted from enrolment, viz.: —

"Justices of courts of record; judges and registers of probate and insolvency; registers of deeds and sheriffs;

"Officers who have held or may hold, for a period of five years, commissions in the army or navy of the United States;

"Officers who have held, for a period of five years, commissions in the militia of this or any other state of the United States; or who have been superseded and discharged; or who held commissions in any corps at the time of its disbandment;

"Staff officers heretofore exempted, and whose offices shall become vacant by the provisions of section fifty-nine;

"Ministers of the gospel;

"The superintendents, officers, and assistants, employed in or about either of the state hospitals, state almshouses, state prison, jails, or houses of correction; keepers of light-houses, and conductors and engine drivers of railroad trains;

"SECT. 10. Every person of either of the religious denominations of quakers or shakers, who, on or before the first Tuesday in May annually," &c.

"SECT. 11. Enginemen, or members of the fire department in a city or town, shall be exempted from military duty by forthwith filing with the assessors," &c.

Section 12 relates to exemption on acconnt of bodily infirmity.

With regard to the Massachusetts Medical Society, we would remark, that the clause we have published was not in the original Act of Incorporation, which bears date November 1st, 1781, but is one of a series of amendments enacted March 8th, 1803. We have not found evidence anywhere of the repeal of this act. We are not informed on what grounds the Commissioner of Enrolment for Suffolk, who is also one of the Associate Justices of the Superior Court, has decided that its provisions have become invalid by subsequent legislation. As no special reference is made to the Society in the extracts from the General Statutes printed above, it seems to us highly probable that the existence of such an act of exemption was unknown to the framers of the act. We should certainly suppose that a clause would have been inserted in the Statute repealing the act in question, had its existence been known. The only ground, then, for the Judge's opinion, that occurs to us is, that the Massachusetts Medical Society is not mentioned in the exemption clause of the Statutes which we have quoted. Whether this is legal ground for depriving the Society of their chartered privilege is a question for lawyers to decide; and we are decidedly of opinion that it will become a subject for legal discussion should the course of events threaten such a thing. Clearly it is a case about which there may be two opinions. We believe it has been distinctly decided that a charter cannot be repealed without the consent of the parties interested, or violation of its provisions on their part.

With regard to the Homœopathic Medical Society, we are quite in the dark, as we have not a copy of its charter within reach, nor have we ever seen it. It is very evident, however, that if any clause of exemption in the charter of that organization has any weight, *a fortiori* the exemption clause in the Act of Incorporation of our time-honored State Society must still hold good.

A MOVE IN THE RIGHT DIRECTION.—"On motion, a preamble and resolutions were brought forward, and discussed, relative to an individual, now a member, in Boston, who has prostituted the certificate of the Association and the names of its officers, to further the sale of his quack preparations, in violation of his written signature of agreement to uphold the objects of the Association, in article 1st, section 5th of the Constitution.

"After considerable discussion of the merits of the case, a vote on the resolution was directed to be taken by ballot.

"The chair announced, on the ballot being rendered by the tellers, that it proved unanimous in favor of the resolutions, and the Secretary was directed to notify him of the action of the Association."

MR. EDITOR,—The above is copied from the proceedings of the Tenth Annual Meeting of the American Pharmaceutical Association, as published in the last number of the Journal of Pharmacy. It would not be difficult to guess the name of the offender, but why was the Secretary so careful to suppress it? If the act were intended as a punishment, the name should be known. How are the public to know, whether Tolu Anodyne or any other is the preparation spoken of? C. E. B.

We are glad to print the following order reinstating Dr. Edward B. Dalton in his post as Surgeon to the 36th New York Volunteers, from which he had been unjustly removed through the misunderstanding of a careless official. No one who knows Dr. Dalton believed for a moment that he could have been guilty of neglect of duty.

War Department, Adjutant General's Office,
Washington, September 20, 1862.

GENERAL ORDERS, No. 143 —So much of "General Orders," No. 125, as dismisses Surgeon Edward B. Dalton, 36th New York Volunteers, is, by direction of the President, revoked.

By order of the Secretary of War,
(Signed), L. THOMAS, *Adjutant General.*
(Official.) E. D. TOWNSEND, *Assistant Adjutant General.*

The Committee of the Suffolk District Medical Society on the subject of the Ambulance system of the United States Army, have prepared the following memorial, which will be circulated for the signatures of the profession.

"The undersigned Physicians of Massachusetts, satisfied that the present system of Ambulance arrangements is extremely defective and a cause of great suffering to our wounded soldiers, respectfully petition the Honorable Secretary of War to place the control of it in the hands of the Medical Department of the U. S. Army, with authority to organize a distinct Ambulance Corps."

LINT.—At a special meeting of the Providence Medical Association, held at the office of Dr. C. W. Parsons on the 18th of September, 1862, the subject of Lint and its uses was discussed. It was voted, after general consultation, that Drs. Mauran and U. Parsons be a committee to express to the public the views of the Association on the subject. In accordance with this vote, the committee would state, that they fully endorse the very sensible views of their medical brethren of Boston, published in the Boston Medical and Surgical Journal of September 11, a summary of which was re-published on the 13th instant in the *Providence Journal;* that the use of scraped or drawn lint, as recently prepared by our patriotic ladies, is rarely deemed necessary in modern surgery, and that its use in *hospital* practice has indeed been injurious rather than beneficial to the patient, especially as an application to suppurating wounds. On the field of battle, however, its use is common; and for that purpose they would now present an admirable substitute, abundant, cheap, and of easy manufacture, viz., the recently invented steam-rotted and bleached *flax-cotton.* Information in regard to this article may be obtained by addressing the Secretary of the R. I. Society for the Encouragement of Domestic Industry.

JOSEPH MAURAN,
USHER PARSONS.

Providence, September 19, 1862.

SURGEONS AND ASSISTANT-SURGEONS FOR THE OHIO REGIMENTS.—At the last examination held in Columbus, August 5th and 6th, and 12th and 13th, a very large number of candidates presented themselves, from which a list of forty were recommended to the Governor for appointment as Surgeons, and one hundred and sixty-three as Assistant-Surgeons, in the Ohio regiments.

An appointment of twenty-five Surgeons and fifty-one Assistant-Surgeons, has also recently been made to the different regiments of the State.

Dr. J. E. Sanborn, of Epworth, Iowa, formerly a fellow of the Massachusetts Medical Society, has been appointed Surgeon to the 27th Iowa Regiment.

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, SEPTEMBER 27th, 1862.

DEATHS.

	Males.	*Females*	*Total.*
Deaths during the week, ...	34	42	76
Average Mortality of the corresponding weeks of the ten years, 1851-1861,	48.3	43.5	91.8
Average corrected to increased population, ...	..	..	102.44
Deaths of persons above 90, ...	..	0	0

Mortality from Prevailing Diseases.

Phthisis.	Chol. Inf.	Croup.	Scar. Fev.	Pneumonia.	Variola.	Dysentery.	Typ. Fev.	Diphtheria.
12	13	2	1	1	0	2	2	0

TO CORRESPONDENTS.—Dr. Sawyer's Communication on the Nitrate of Potassa as a Remedy for Intermittent Fever; Dr. Mussey's on the Contagiousness of Typhoid Fever; and Dr. Ruschenberger's on the use of Oakum as a substitute for Lint, are on file for publication.

PAMPHLETS RECEIVED.—A Valedictory Address, delivered at the Public Commencement of the University of the Pacific, March 15, 1862, by Henry Gibbons, M.D., Professor of Materia Medica.

The article in this number of the JOURNAL on "Arterial Murmurs," &c., was taken from the London "Medical Times and Gazette." Credit in the proper place was accidentally omitted.

DIED,—At Monson, Dr. H. Cady.—In Dayton, Ohio, on the 17th of July, Dr. Job Haines, in the 69th year of his age, one of the early settlers of south-western Ohio, and one of the oldest and most venerable physicians of the State —Killed, at the battle of Antietam, Sept. 17th, Albert A. Kendall, Assistant Surgeon of the 12th Regiment Mass. Volunteers, aged 34 years.

DEATHS IN BOSTON for the week ending Saturday noon, September 27th, 76. Males. 34—Females, 42. Accident, 4—disease of the bowels, 1—bronchitis, 1—cholera infantum, 13—cholera morbus, 2—consumption, 12—convulsions, 1—croup, 2—cyanosis, 1—debility, 1—diarrhœa, 2—dropsy, 3—dropsy of the brain, 3—dysentery, 2—scarlet fever, 1—typhoid fever, 2—gangrene (of the lungs), 1—disease of the heart, 3—infantile disease, 3—intemperance, 1—inflammation of the lungs, 1—marasmus, 4—measles, 1—old age, 3—paralysis, 1—puerperal disease, 1—unknown, 5—uterine hæmorrhage, 1.

Under 5 years of age, 37—between 5 and 20 years, 6—between 20 and 40 years, 13—between 40 and 60 years, 12—above 60 years, 8. Born in the United States, 56—Ireland, 16—other places, 4.